

## INTER-OFFICE MEMORANDUM

Chief M — 5443 1/31/12

TO: Kenneth Robertson  
Chief Procurement Officer  
Purchasing Department  
(Through Channels)

FROM: *A/C LY MCD-859*  
Major Jorge A. Martin  
Commander  
Special Investigations Section

DATE: January 30, 2012

FILE:

SUBJECT: Bomb Squad Talon Robot

REFERENCES:

ENCLOSURES: Supporting Documents

As per your request, this memorandum documents the acquisition of the Foster-Miller Talon robot in order to spend monies granted to the City of Miami by the Urban Area Security Initiative (UASI) for necessary upgrades to the robotic platform.

In 2005, The Miami Police Bomb Squad was selected to participate in a study on the capabilities of small robotic platforms used for explosive disposal in a public safety setting. The study was conducted by the Technical Support Work Group (TSWG) and sponsored by the United States Department of Homeland Security.

As part of the study, the Miami Police Bomb Squad accepted delivery of a Foster Miller Talon IIIB robot. The Bomb Squad's role in the study would be to utilize the Talon robot in "real world" render safe operations as well as training. Bomb Technicians were then required to provide TSWG with written reports on a monthly basis, detailing the performance of the Talon robot. Personnel from the Bomb Squad did this, providing vital information on the strengths and weaknesses of the Talon robot. This completed analysis was later shared by TSWG to all stakeholders in the Explosive Ordnance Disposal (EOD) community, which may benefit from such information in the future.

Upon completion of the study, the Talon robot was permanently transferred to the Miami Police Bomb Squad at no cost. The cost of the Talon Robot in 2005 was \$120,353.00 as indicated in the attached invoice. The robot has been in our equipment inventory ever since and has proven invaluable in rendering safe hazardous devices/materials while allowing personnel to operate from a safe distance and minimize the risk of death or serious bodily injury. The upgrades to the Talon will enable the Bomb Squad to continue to perform remote render safe operations using the latest in robotic technology.

JAM:sc

MATERIAL INSPECTION AND RECEIVING REPORT						Form Approved OMB No. 0704-0248																																																
<p>The public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0248), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p> <p style="text-align: center;">PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ADDRESS.</p> <p style="text-align: center;">SEND THIS FORM IN ACCORDANCE WITH THE INSTRUCTIONS CONTAINED IN THE DFARS, APPENDIX F-401.</p>																																																						
1. PROCUREMENT INSTRUMENT IDENTIFICATION (CONTRACT) NO. <b>N41756-05-M-4805</b>			ORDER NO.		6. INVOICE NO./DATE		7. PAGE <b>1</b> OF <b>2</b>																																															
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9. PRIME CONTRACTOR CODE <b>Foster-Miller, Inc.</b> <b>350 Second Avenue</b> <b>Waltham, MA 02451-1196</b>				10. ADMINISTERED BY CODE <b>Navy Engineering Logistics Office</b> <b>Arlington, VA 22202</b>																																																		
11. SHIPPED FROM (If other than 9) CODE <b>Foster-Miller, Inc.</b> <b>350 Second Avenue</b> <b>Waltham, MA 02451-1196</b>				12. PAYMENT WILL BE MADE BY CODE <b>CTTSO/TSWG</b> <b>201 12<sup>th</sup> Street, Suite 116</b> <b>Arlington, VA 22202</b> <b>Attn: Michele Watson</b>																																																		
13. SHIPPED TO CODE <b>City of Miami</b> <b>Department of Fire-Rescue</b> <b>1151 NW 7<sup>th</sup> Street, 3<sup>rd</sup> Floor</b> <b>Miami, FL 33136</b>				14. MARKED FOR CODE <b>Attn: Joseph R. Fernandez</b> <b>Assistant Fire Chief/Emergency Manager</b>																																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">15. ITEM NO.</th> <th style="width: 45%;">16. STOCK/PART NO. DESCRIPTION <small>(Indicate number of shipping containers - type of container - container number.)</small></th> <th style="width: 10%;">17. QUANTITY SHIP/REC'D*</th> <th style="width: 5%;">18. UNIT</th> <th style="width: 15%;">19. UNIT PRICE</th> <th style="width: 20%;">20. AMOUNT</th> </tr> </thead> <tbody> <tr> <td rowspan="8" style="text-align: center; vertical-align: top;">0001</td> <td>Talon IIIB Robot System</td> <td style="text-align: center;">1</td> <td style="text-align: center;">EA</td> <td style="text-align: right;">69,869.00</td> <td style="text-align: right;">\$69,869.00</td> </tr> <tr> <td>Battery Kit, OCU, Rechargeable (with charger and adapter)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">EA</td> <td style="text-align: right;">2,920.00</td> <td style="text-align: right;">2,920.00</td> </tr> <tr> <td>Camera, Remote Controlled, Zoom (40:1)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">EA</td> <td style="text-align: right;">1,932.00</td> <td style="text-align: right;">1,932.00</td> </tr> <tr> <td>Comms, Fiber Optic Upgrade, 300 Meter Kevlar-Coated Cable</td> <td style="text-align: center;">1</td> <td style="text-align: center;">EA</td> <td style="text-align: right;">14,769.00</td> <td style="text-align: right;">14,769.00</td> </tr> <tr> <td>Firing Set, (2 Channel USTI with single firing set)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">EA</td> <td style="text-align: right;">3,524.00</td> <td style="text-align: right;">3,524.00</td> </tr> <tr> <td>Illumination Package, Forward Looking</td> <td style="text-align: center;">1</td> <td style="text-align: center;">EA</td> <td style="text-align: right;">471.00</td> <td style="text-align: right;">471.00</td> </tr> <tr> <td>Pan Disrupter Mount with Recoil Reduction</td> <td style="text-align: center;">1</td> <td style="text-align: center;">EA</td> <td style="text-align: right;">2,721.00</td> <td style="text-align: right;">2,721.00</td> </tr> <tr> <td>Pan/Tilt with Mast</td> <td style="text-align: center;">1</td> <td style="text-align: center;">EA</td> <td style="text-align: right;">7,550.00</td> <td style="text-align: right;">7,550.00</td> </tr> </tbody> </table>								15. ITEM NO.	16. STOCK/PART NO. DESCRIPTION <small>(Indicate number of shipping containers - type of container - container number.)</small>	17. QUANTITY SHIP/REC'D*	18. UNIT	19. UNIT PRICE	20. AMOUNT	0001	Talon IIIB Robot System	1	EA	69,869.00	\$69,869.00	Battery Kit, OCU, Rechargeable (with charger and adapter)	1	EA	2,920.00	2,920.00	Camera, Remote Controlled, Zoom (40:1)	1	EA	1,932.00	1,932.00	Comms, Fiber Optic Upgrade, 300 Meter Kevlar-Coated Cable	1	EA	14,769.00	14,769.00	Firing Set, (2 Channel USTI with single firing set)	1	EA	3,524.00	3,524.00	Illumination Package, Forward Looking	1	EA	471.00	471.00	Pan Disrupter Mount with Recoil Reduction	1	EA	2,721.00	2,721.00	Pan/Tilt with Mast	1	EA	7,550.00	7,550.00
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21. CONTRACT QUALITY ASSURANCE a. ORIGIN <input type="checkbox"/> CQA <input type="checkbox"/> ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.				b. DESTINATION <input type="checkbox"/> CQA <input type="checkbox"/> ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.																																																		
DATE _____ SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE _____  TYPED NAME:  TITLE:  MAILING ADDRESS:   COMMERCIAL TELEPHONE NUMBER:				22. RECEIVER'S USE Quantities shown in column 17 were received in apparent good condition except as noted.  DATE RECEIVED _____ SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE _____  TYPED NAME:  TITLE:  MAILING ADDRESS:   COMMERCIAL TELEPHONE NUMBER:  <i>*If quantity received by the Government is the same as quantity shipped, indicate by (X) mark; if different, enter actual quantity received below quantity shipped and encircle.</i>																																																		
23. CONTRACTOR USE ONLY DCMC - Boston, GFOC & GFOM D. Daehler P. McKinley F. Pugsley Contract/DNAV.060030 07/14/05 <div style="text-align: center; font-size: 2em; margin-top: 20px;">#297</div>																																																						

MATERIAL INSPECTION AND RECEIVING REPORT CONTINUATION SHEET					PAGE 2	OF 2
SHIPMENT NO.	DATE SHIPPED	PROC. INSTRUMENT IDEN.	ORDER NO.	INVOICE NO.		
NAV0001Z	2005July15	N41756-05-M-4805				
ITEM NO.	STOCK/PART NO. <small>(Indicate number of shipping containers - type of container - container number.)</small>	DESCRIPTION	QUANTITY SHIP'D/REC'D	UNIT	UNIT PRICE	AMOUNT
		Two-Way Comms	1	EA	4,578.00	4,578.00
		Wrist Assembly	1	EA	5,771.00	5,771.00
		Two-Day On-Site Training Class Including Travel Expenses	LOT		4,500.00	4,500.00
		Two-Year Extended Warranty (\$14,386 --- included at no cost)	LOT			N/C
		Crating and Packaging Materials and Preparation for Shipment	1	EA	1,148.00	1,148.00
		Shipping	LOT		600.00	600.00
					<b>TOTAL</b>	<b>\$120,353.00</b>



## COMBATING TERRORISM TECHNICAL SUPPORT OFFICE

Mark Center Drive  
Alexandria, VA 22215

January 4, 2012

Miami Police Dept. Bomb Squad  
Attn: Able Costa  
Special Investigations Section  
400 NW 2 Ave  
Miami, FL 33128


SUBJECT: Grant of Foster Miller Talon IIIB Robot in Support of ODP/TSWG Small Robot Evaluation 2005

In 2005, the Technical Support Working Group (TSWG) supported an evaluation of small robots for use by civilian bomb squads. This study was sponsored by the U.S. Department of Homeland Security, Preparedness Directorate, Office of Grants and Training. The Miami Police Department Bomb Squad was selected to participate in the evaluation, and a Foster Miller, Talon IIIB robot was delivered to the Bomb Squad in support of the evaluation. As a result of Miami P.D. Bomb Squad participation, the subject robot was permanently transferred to the Miami P.D. Bomb Squad at no cost, upon completion of the evaluation.

If there are any questions regarding the procurement and transfer of the subject Talon IIIB robot used for this study to the Miami P.D. Bomb Squad, please contact Mr. Anthony Detrick, Sr. Program Analyst, TSWG/Improvised Device Defeat, Office 571-372-7242, Cell 703-407-8037, or email [anthony.detrick.ctr@cttso.gov](mailto:anthony.detrick.ctr@cttso.gov).

Sincerely,

Edwin Bundy, PhD  
Program Manager IDD Subgroup



# FEMA

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Pr

CBRNE Operational and Search and Rescue Equipment >> Operational Equipment >> Robots and Remotely Operated Vehicles >> Robots

General | [Grant Allowability](#) | [Previous Numbering](#)

AEL Number: 03OE-07-ROBT

AEL Title: Robots

### Description

Robotic platforms to support various mission areas such as explosive device remediation, hazardous materials operations, tactical law enforcement operations, search & rescue, and surveillance/detection.

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Please provide the following information in order to document the sole source request:

1. Explain why the product/service requested is the only product/service that can satisfy your requirements, and explain why alternatives are unacceptable. Be specific with regard to **specifications, features, characteristics, requirements, capabilities, and compatibility**. Describe what steps have been undertaken to make this determination.

The Talon robot is not distributed through other sales persons or markets. It can only be acquired through QinetiQ-NA. The Generation IIIB LAW currently in the possession of the City of Miami can no longer be supported by outdated Generation III intelligence or circuitry.

Advancement of electronics is a QinetiQ sole distributed product; there are no alternatives with the Talon robot.

**Specifications** are proprietary, but consist of upgraded circuitry and advancements in the electronics field; upgrade Generation IV Fire set system, along with moderate frame alterations to accept these changes.

**Features & Capabilities** of the upgrade allow easier maneuverability, climbing capabilities, and drive torque of the robotic platform.

**Characteristics** of the robot remain in that it is a sturdy platform that can handle rough terrain and use. On average in theatre with the military the Talon can withstand heavy day to day use better than any competitor's platform.

**Requirements** are that the current platform is outdated with advancements of electronics, and lessons learned in the field with the systems over the years. Hence this being the Generation IV Talon.

**Compatibility** within its own system remains as the chassis of the robot is the same. It is compatible with the controller currently used on the Generation III Talon.

QinetiQ-NA continuously moves to improve its platforms as bomb technicians military or civilian depend on these platforms to save the lives of themselves and others. Without advancements in technology, tools, mobility, etc. the Talon would go the way of the Model T. QinetiQ-NA is dedicated to saving lives of those who put themselves in harm's way.

2. Explain why this services provider, supplier or manufacturer is the only practicably available source from which to obtain this product or service, and describe the efforts that were made to verify and confirm whether, or not, this is so. (Obtain and include a letter from the manufacturer confirming claims made by distributors or exclusive distributorships regarding the product or service, if that is cited as a reason for this Sole Source.)

QinetiQ-NA is the only provider of sales and service to the Talon family of robotic platforms. A sole source letter has been provided.

3. Will this product obligate us to a particular vendor for future purchases (either in terms of maintenance that only this vendor will be able to perform and/or if we purchase this item, will we need more "like" items in the future to match this one)?

The Talon robot Generation III has been in the bomb squad's possession for nearly 6 years and was given to the city at no cost by a federal entity, (TSWIG). The upgrade to the platform and in its entirety is a proprietary piece of machinery. There are no outside vendors associated with repair or service of these platforms.

4. Explain why the price for this product or service is considered to be fair and reasonable.

Price in robotics as well as any market is based on demand, availability of parts, electronics, current labor costs, etc. QinetiQ-NA consistently wins federal, state, and local government contracts through competitive process. That is why QinetiQ-NA has more robotic platforms in service to the US Armed Forces, Foreign Militaries, and First Responders worldwide than any other robot manufacturer.

5. Describe the negotiation efforts, if any, that have been made with the supplier to obtain the best possible price.

Negotiations on price were completed with Sgt Steve Castell, Ralf Kreling (QinetiQ-NA Regional Product Manager), and Fran Pugsley (QinetiQ-NA Business Systems Manager). The cost of the upgrade is below market due to the funding identified as available by Sgt Castell. The real cost to QinetiQ-NA is close to or exceeds that quoted; however, this will assist QinetiQ-NA in moving forward with the Generation IV Talon. It also exhibits our dedication to the men and women who actually perform the duties of bomb technicians.

6. Explain the consequences(s) to the City, including the dollar estimate of the financial impact, if this Sole Source is not approved.

Based on the fact that platform was given to the City of Miami at no cost (\$150k savings) by a federal entity (TSWIG). There was no initial outlay of capitol funds for the purchase. The upgrade to the system as quoted will allow it to remain an active participant in the bomb squad's tool box for years into the future. This will assist in keeping the bomb technician's and City of Miami safe from harm associated with explosive related incidents.

Presently to purchase a new equivalent robotic platform system from a reputable robotic company would cost the City of Miami, approximately \$130k to \$175k. To purchase a system from a less qualified robotic manufacturer would place the city in a position of not providing the best product available for its personnel when they must put themselves in harm's way.